National Research Council "216 Studies"

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Genesis of the 216 Studies

2000 Water Resources Development Act -- Section 216

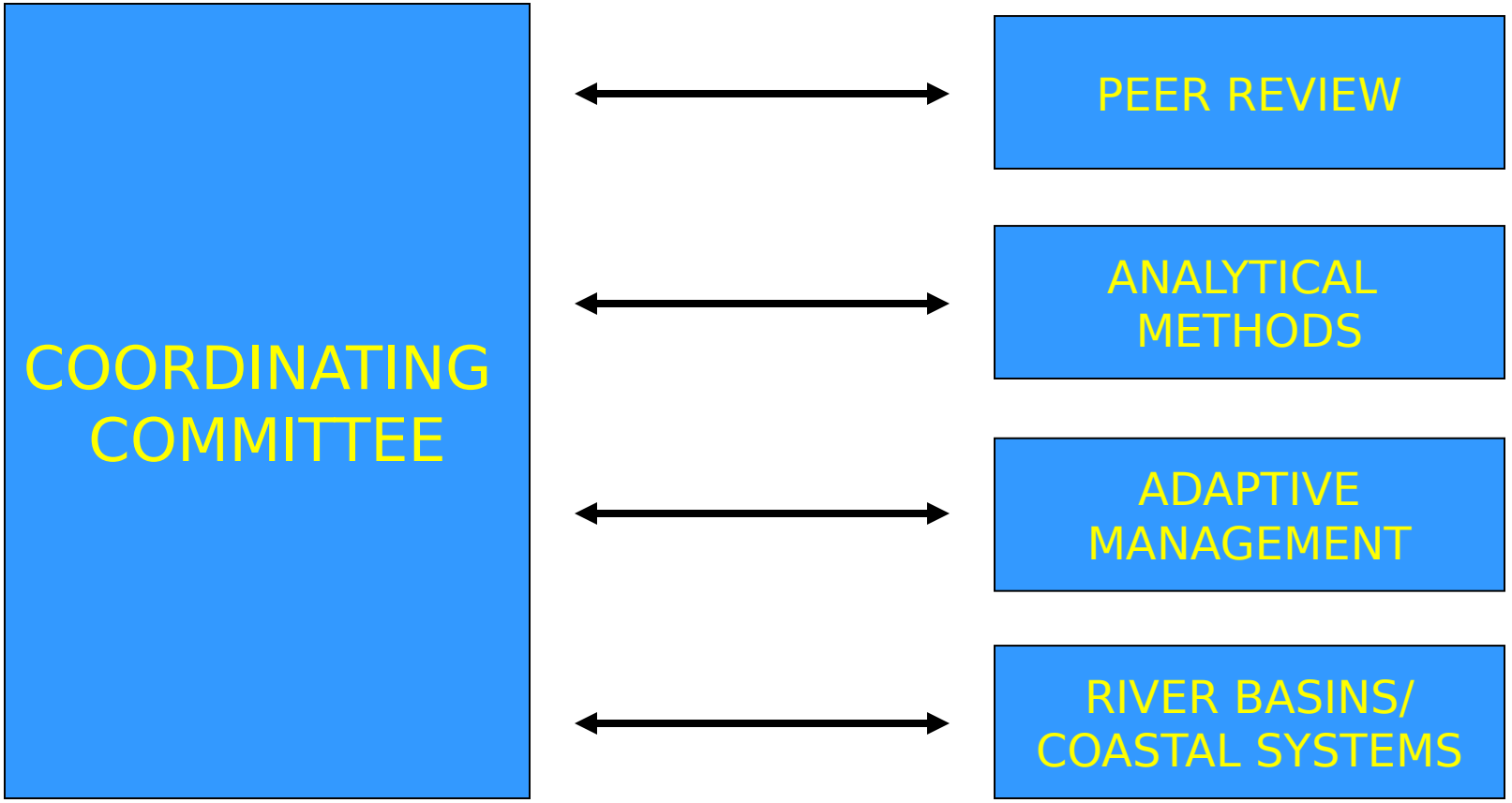
- **INDEPENDENT PEER REVIEW OF PROJECTS**
- The Academy shall study the practicality and efficacy of the independent peer review of the feasibility reports, including--
- (A) the cost, time requirements, and other considerations relating to the implementation of independent peer review; and
- (B) objective criteria that may be used to determine the most effective application of independent peer review to feasibility reports for each type of water resources project.

- **INDEPENDENT PEER REVIEW OF METHODS FOR PROJECT ANALYSIS**
- …the Secretary shall contract with the Academy to conduct a study that includes--
- (A) a review of state-of-the-art methods;
- (B) a review of the methods currently used by the Secretary;
- (C) a review of a sample of instances in which the Secretary has applied the methods identified under subparagraph (B) in the analysis of each type of water resources project; and
- (D) a comparative evaluation of the basis and validity of state-of-the-art methods identified under subparagraph (A) and the methods identified under subparagraphs (B) and (C).

Alternative Structures

- Corps Programmatic Areas?
  - Navigation; Flood Control; Port and Harbor Management
- Disciplinary Lines?
  - Economics; Engineering; Hydrology

216 Studies Structure



Analytical Methods and Approaches for Water Resources Project Planning

Panel on Analytical Methods

- 1. The administration and the Congress, in cooperation with the states, should reconcile inconsistencies within the existing, *de facto*, body of national water policy.
- 2. A body should be specifically charged to coordinate water policies and activities among the administration, the Congress, the states, and federal water management agencies.
- 3. The *P&G* should be revised to better reflect contemporary management paradigms, methods, and directives.
- 4. Even if the administration should choose to not revise the *P&G*, the Corps should draft a proposed revision to its *Planning Guidance Notebook*.
- 5. Benefit-cost analysis, although an important decision making guide, should not be used as the lone decision criterion in Corps planning studies.
- 6. Periodic reviews of completed projects should be a routine part of Corps project planning and management.

Panel on Analytical Methods

- 7. Resources and time allocated for Corps reconnaissance studies should be commensurate with the scale and complexity of the water planning issue at hand.
- 8. The Corps should conduct a comprehensive review of district-level experiences with stakeholder participation procedures and activities.
- 9. A *summary document* that identifies key environmental and social issues, key assumptions, alternatives considered and evaluated, objectives sought, benefits and costs, and trade-offs and stakeholder perspectives and differences.
- 10. The Corps should strengthen its programs in the areas of systems engineering aspects of water resources, risk and uncertainty analysis, and the integration of engineering and ecosystem analyses.
- 11. Independent experts from outside the Corps should be routinely enlisted to provide advice.

Adaptive Management for Water Resources Project Planning

Panel on Adaptive Management

- 1. Post-construction evaluations should be a standard for the adaptive management of Corps projects and systems.
- 2. Stakeholder collaboration should be an integral component in the adaptive management of Corps projects and systems.
- 3. Independent experts should be periodically enlisted to provide advice on Corps adaptive management initiatives.
- 4. Congress should establish a Corps of Engineers Center for Adaptive Management.
- 5. The administration and Congress should help resolve conflicts and inconsistencies within the body of national water policies, and clarify water management objectives for the Corps to pursue.

Panel on Adaptive Management

- 6. Congress should provide a new study authority and direction that will increase the Corps' ability to monitor and evaluate post-construction changes and periodically adjust operations.
- 7. Congress should allocate funding and personnel resources to help support and sustain adaptive management within the Corps.
- 8. The administration and the Congress should consider revising cost sharing formulas to promote the application of adaptive management principles.
- 9. The administration should strengthen federal interagency coordination mechanisms for large-scale water resources and coastal management efforts.

River Basins and Coastal Systems Planning within the U.S. Army Corps of Engineers

Panel on River Basins/Coastal Systems

- 1. Corps planning guidance should be modified to provide contemporary analytical techniques necessary for integrated systems planning on large scales within river and coastal systems.
- 2. Reconnaissance studies should include an integrated evaluation of all project benefits and impacts at any relevant spatial and temporal scale.
- 3. Cost-share requirements for feasibility studies should be amended to provide for 100 percent federal funding for integrated evaluation of project benefits and costs at relevant spatial and temporal scales.
- 4. The scope and budget for integrated planning studies should be determined in study reconnaissance and explicitly defined in the project study plan and cost-sharing agreement.

Panel on River Basins/Coastal Systems

- 5. Approval of a feasibility study should be contingent upon a judgment, informed by internal and external review, that a study plan of salient factors at all relevant scales has been defined.
- 6. To help ensure the Corps commitment to environmental stewardship, cumulative effects should be consistently evaluated for all projects.
- 7. Post-project evaluations should be a component of all projects and should be cost-shared with the local project sponsor.
- 8. The administration and Congress should ensure that the Corps is able to work effectively in collaborative settings.
- 9. The Corps should review its staffing practices and, if necessary, expand those practices to maintain adequate internal staffing capabilities, as well as employ the services of external experts.

U.S. Army Corps of Engineers Water Resources Project Planning: A New Opportunity for Service

Coordinating Committee

“Portfolio planning” as a reorientation of Corps planning emphases and capacity

- 1. The Corps’ primary environmental mission should be to restore hydrologic and geomorphic processes in large river and coastal systems.
- 2. Economic analyses should explicitly evaluate how a new project may affect national competitiveness and regional economies, foregone benefits associated with modifications or operational changes, and NED benefits that accrue from restoration.
- 3. A new study authority should be enacted (several principles listed in the report).
- 4. The Chief of Engineers should assign responsibility for complex and controversial studies to specially-chartered, agency-wide teams.

Coordinating Committee

- 5. A process for resolving conflicts that cannot be resolved through planning methods or interagency agreements should be created within an existing body.
- 6. Regional assessments should be periodically conducted to help identify national-level water issues of federal import.
- 7. The Secretary should report to Congress on projected staffing, skill, and budgetary needs to implement portfolio planning.
- 8. A “community of practice” for computer-aided decision making, including Corps staff and outside experts, should be established.
- 9. A Chief’s Report should report alternatives not recommended, and a clear explanation of recommendations made in controversial studies.
- 10. A review of cost-share limitations and requirements and the reconnaissance-feasibility distinction should be conducted.
- 11. Congress should develop a process to inventory and rank funding priorities within the current “backlog” of Corps projects.

216 Studies Overarching Themes

- 1. Development and execution of Corps planning methods are closely related with broader, federal-level policy structures and processes.
- 2. Importance of post-construction evaluations.
- 3. Value of thorough analysis and review during early stages of planning studies.
- 4. All implications of study cost sharing should be carefully considered.
- 5. Greater degree of centralization and streamlining is needed within the Corps and its planning studies.
- 6. Need for the administration and Congress to resolve conflicts and inconsistencies within national water policies and directives.
- 7. Greater emphasis on management flexibility and adaptability.